

**Dagdick, Elise (CWS)**

---

**From:** Kiss, Brian (CWS)

**Sent:** January-25-16 9:32 AM

**To:** Dagdick, Elise (CWS)

**Cc:** Bulloch, Daniel (CWS); Leavesley, Kelly (CWS); Firlotte, Nicole (CWS); Joynt, Brian (CWS); Duncan, James (CWS)

**Subject:** RE: MMTP EIS

Hello Elise,

Attached are MMTP EIS comments from the Wildlife and Fisheries Branch.

-Brian Kiss

## **Manitoba-Minnesota Transmission Project EIS – Wildlife and Fisheries Branch Comments**

The Wildlife and Fisheries Branch supports the wildlife related comments submitted by the Eastern Region. Effort was made to reduce redundancy between Branch and Regional comments; however we have provided further commentary to certain sections where needed.

### **1.2 Vegetation and Wetlands – Technical Data Report**

#### **2.2.1 Methods**

**“grasslands have a target patch size of 50-100 ha... Two-hundred was chosen as a conservative approach.”**

Based on the recommendation for grasslands provided, how can 200 ha be justified? Given the recommendation all grassland patches 100 ha in size (if not smaller) should have been identified, especially given that the paragraph further states that the value of additional landscape components is **“unknown or variable depending on the species and region”**. Same comment for Chapter 10 section 10.3.2.1.1.

#### **Tables 2-17 and 2-18**

The SARA and COSEWIC lists were developed using 2013 data. More recent documents should have been used, as some statutes have changed.

#### **2.6.4.2 Results**

The locations of rare plants identified during assessment surveys should be provided to the Conservation Data Centre to assist with future conservation efforts. Same comment for Chapter 10 Section 10.4.6.

#### **2.6.4.3 Data Gaps**

**“The following gaps (> 10 km) in the collection of field survey data along the New ROW occurred due to lack of road access...”**

Lack of road access should not be used to justify a lack of data collection during the assessment or monitoring phases. Lack of road access is an obstacle that this proponent and others have overcome on a regular basis in much more inaccessible areas of the province. Due to their remoteness and inaccessibility, it is possible that these habitats stand to be the most negatively impacted sites post-new ROW development; therefore they should have been properly assessed.

## **1.3 Wildlife and Wildlife Habitat – Technical Data Report**

### **2.0 Wildlife and Wildlife Habitat**

#### **Table 2-1**

**Moose** – the table states that “**moose are rare in the region**”. This is also consistently conveyed throughout the document (e.g. 9.4.3, Section 4.4.7 in Chapter 22 - Appendix 22C). A more appropriate statement would be that moose are **uncommon** in the region, or were determined to be uncommon based on assessment studies.

Wolves are not mentioned in this table, even though they are mentioned throughout the document and are presumably the “predators” referred to in the **Ungulates and Predators** component of the monitoring plan (although this is unclear, please see comments below). If the intent is to include wolves under the “Other Furbearers”, then likewise to the Eastern Region’s comments on Black Bear, the gray wolf is classified as a Big Game species under *The Wildlife Act*, and should not be lumped into the furbearer category.

#### **2.3.1.2.1 White-tailed Deer**

**“Overall, the capability of the land to support ungulates in the RAA is moderate to severely limited (CLI 2002a)”**

We do not agree with this statement, or with solely using the CLI classification to make these types of conclusions. We support the Eastern Region’s comments regarding this topic addressed in their response to Section 2.3.1.2.3.

**“There are approximately 150,000 white-tailed deer throughout Manitoba...”**

A more appropriate estimate would be 100,000.

#### **2.3.1.2.2 Elk**

**“There are over 7,000 elk in Manitoba, located primarily in...”**

This should include Duck Mountain and the Interlake.

Even though the impacts to ungulates in the Glenboro area are considered to be negligible, a background statement describing the GHA 30 elk population should have been included in this section.

### **2.3.1.2.3 Moose**

**“Moose in Manitoba occur in small numbers in pockets of habitat...”**

This statement should have said “southern Manitoba” given that their distribution extends north of the areas described, and that their densities are relatively high in the RMNP area, which is contradictory to how the current statement reads.

### **2.3.1.2.4 Black Bear**

The descriptions of potential dens sites should have included open ground nests. Going forward, this type of den should be described in any monitoring and environmental protection plans where future conflicts and mitigation may arise.

**“The density of black bears in southern Manitoba is expected to be moderate to high...”**

This should have said specifically “southeastern Manitoba”.

### **2.3.1.2.5 Furbearers and Other Mammals**

While gray fox is a COSEWIC designated species at risk, COSEWIC 2014a also states that a breeding population has never been found in the range which includes southeastern Manitoba and northwestern Ontario. It further states that any gray fox in Manitoba are likely migrants and accidental. This should have been stated. The same comments stand for statements made in Sections 2.3.4.1 & Chapter 6 Section 6.2.6.4.

Also, least weasel is a naturally uncommon species and should have been identified as so.

### **2.3.2.1 Methods**

**“One Manitoba Conservation Natural Resource Officer (NRO) from Piney (D. Cooper)”**

**“One NRO from Steinbach (T. Kuzenko)”**

For your information going forward when referring to these individuals and their locations, they are now to be referred to as Conservation Officers, and D. Cooper is positioned out of the Sprague District, not Piney.

### **2.3.3.3.1**

Winter track surveys for furbearers are at best anecdotal; the non-canid furbearer species likely cycle, and these numbers provide little information on their relative abundance; ideally, surveys should be conducted over 4 years to account for any cycles.

### **Table 2-6**

From what FRI characteristics within forest types were linear regressions developed?

#### **2.3.4.6 Furbearers and Other Mammals**

**“Marten are more tolerant of fragmented landscapes, whereas fishers tend to use more contiguous forest blocks. Both were most commonly observed in the southern portions of the LAA where large blocks of intact forest persist.”**

Were fisher and marten observations made during or outside of aerial surveys (not referenced)?

## **Chapter 6 Environmental and Socio-economic Setting**

### **6.2.6.1 Mammals**

Both fisher and lynx are important furbearing species and should have been identified.

### **6.2.6.4 Wildlife Species of Conservation Concern**

**“Grey fox... This furbearer has been found...”**

Gray fox is not a scheduled Fur Bearing Animal under *The Wildlife Act*.

## **Chapter 9 Assessment of Effects on Wildlife and Wildlife Habitat**

### **9.1.2.2 Wildlife Mortality**

**“MCWS further indicated that the elk herd resides primarily on private lands...”**

The Vita herd actually resides on a combination of private and crown lands. Also, the majority of MCWS’s observations would have been made during winter aerial surveys; therefore herd range and occupation during other seasons remains unknown.

**“Creating new access in these areas could lead to increased hunting of deer and bear and increased predation of deer by wolves.”**

We agree with this statement and appreciate its inclusion; however it should also mention elk.

### **9.3.1.4 Field Studies**

**“Field studies addressed three broad wildlife categories:”**

Specific sections within the TDR should be referenced in this section.

Field study rationale and methodology is provided in these sections, but why not a summary of results?

#### **9.3.1.4.1 Mammals**

##### **LARGE MAMMAL SURVEY**

##### **Study Design**

The study design description should have contained more details, which would help MCWS understand exactly how baseline data were collected and how these studies will be carried through to the monitoring phase (the monitoring plan also requires more detail, see comments below). The Wildlife and Fisheries Branch has the following questions:

- How were camera locations determined?
- How were larger distances (up to 12 km) between cameras locations justified?
- Why were cameras not placed on both sides of the transmission line for full coverage at each location?
- How will camera traps be used to estimate abundance of mammals? Can biologists be reasonably certain the same animal is not counted multiple times using camera traps?
- Design 1: Was the camera located 500 – 800 m from the route (in the same habitat type) intended to be used as a “control”? If so, please justify this distance as being an acceptable distance to be out of the zone of influence for large mammals. A suitable “control” should be selected in an area far enough away from the proposed development where there will be no residual effects on the target species, keeping in mind that these

assessments should contribute baseline information to the long term Environmental Monitoring Program.

- Design 2: Why were locations off the transmission line not included as in Design 1?
- Were the objectives of the two designs different? Please justify why data collection methods were different, and not consistent between years.

This section should also report on the density of cameras throughout the study area and the representative area covered by each.

Furthermore, we support the Eastern Region's comments on the camera trap deployment period, mentioned in response to 1.3 Wildlife and Wildlife Habitat TDR - Section 2.3.3.1. The period used during the assessment does not incorporate year round mammal activity, especially during the white-tailed deer rut/general hunting season when it could be hypothesized that the greatest increases in Project related mortality would occur, or during the late-fall winter period when elk are predicted to be in Manitoba (as consistently stated in this document).

## **AERIAL WINTER TRACK SURVEY**

### **Rationale**

**"An aerial survey of mammals and mammal tracks during late winter period (Photo 9-2) is an efficient way of determining large mammal distribution, species composition and movement pattern over a large area."**

We disagree with this statement. The described methodology will only determine large mammal winter distribution, and only provides a single snapshot in time, therefore not allowing Manitoba Hydro to determine **"movement pattern over a large area"**.

Also, although multi-species surveys for animals and their tracks are efficient, they are not ideal. It would be challenging to maintain a suitable search image for each species (animal and tracks), particularly when searching for ungulates, furbearers and small mammals. If single-species surveys are not suitably efficient for the collection of pre-disturbance data, consider minimally utilizing different surveys for ungulates, furbearers and small mammals and incorporate methods to allow for calculation of detection probability.

### **Methods**

**"For white-tailed deer, only tracks were noted..."**

**"Again, all tracks (especially ungulate, furbearer, and small mammal tracks) on 200 m of either side of the aircraft were recorded."**

Please explain why only tracks were counted for white-tailed deer, and not individuals? Going forward, given that Manitoba Hydro intends on **"Expanding the baseline knowledge of occurrence, distribution and abundance of ungulates and predators interacting with the Project"** (Chapter 22 – Appendix 22C - Section 4.4.7), this methodology and data collected



will have limited applicability in assessing potential changes in white-tailed deer abundance, which is, and should remain a primary objective.

#### **9.4.2 Species of Conservation Concern**

The locations of all SOCC identified during assessment surveys should be provided to the Conservation Data Centre to assist with future conservation efforts.

##### **“Grey fox... is expected to be an occasional resident in the RAA.”**

There is no known breeding population of gray fox in Manitoba, and therefore this species should not be referred to as a “resident”.

#### **9.4.3 Mammals**

##### **Elk**

##### **“Despite repeated baseline survey efforts in 2014 and 2015, elk and/or elk sign (tracks, antlers, pellets, browse) were not detected in the LAA.”**

This should have stated how many surveys and what types of surveys were conducted within the LAA that potentially would have detected elk. Differentiation should have also been made between surveys where elk were the target species and surveys where elk/sign would have been incidentally recorded (e.g. during heptile surveys).

##### **Moose**

##### **“moose are rare in southeastern Manitoba due to a combination of factors such as habitat fragmentation, predation by wolves, parasites...”**

See above comments on use of “rare”. The actual role of wolf predation in the southeastern moose population declines is unknown, and furthermore, anecdotal evidence suggests that it has not been a limiting factor in the study area. Therefore going forward, the historic role of wolf predation should be moved to end of the list of potential factors in all future documents associated this project. The same comment stands for the list of factors in Chapter 22 - Appendix 22C - Section 4.4.7.

#### **Other Furbearers**

Lynx is not mentioned in this section and should have been.

##### **9.5.2.1.1**

##### **“American marten is sensitive to habitat fragmentation...”**

This statement contradicts several others throughout the document that state marten can tolerate fragmentation.

### 9.7.1 Significance of Environmental Effects from the Project

**“Mortality risk to wildlife was considered and reduced through the transmission line routing process. This was achieved by avoiding protected areas, through consideration of candidate protected areas and natural wildlife habitat in the routing process.”**

This statement should have contained more information on how important wildlife habitat was avoided. Avoiding protected areas is not a mitigation tactic, given that the *Use of Wildlife Lands Regulation* prohibits hydro electric development in protected Wildlife Management Areas, and the *Ecological Reserves Act* prohibits any type of development in Ecological Reserves within the study area. If mitigation was achieved through buffering protected areas during the route selection process then it should have been explained as such in this section.

**“The Vita elk herd is not anticipated to be affected by the Project and ultimately the final preferred route avoids the herd’s core area”**

We support the Eastern Region’s comments on the preferred route only avoiding the **known core winter range**. Although we too appreciate that the final route avoids this area, many data gaps still exist and future elk monitoring studies that investigate seasonal occupation and movement patterns may dispute this statement.

## **Chapter 10 Assessment of Potential Environmental Effects on Vegetation and Wetlands**

### **10.2.3 Learnings from Past Assessments**

**“Effects on wetlands from transmission projects have been shown to be limited (Stantec Consulting Ltd. 2014). As result of these recent findings, regulatory requirements in Alberta for transmission projects that intersect wetlands are being reviewed and will likely be relaxed (A. Fulton. pers. com. 2015).”**

We do not agree with the inclusion of this statement. Conclusions in this EIS should be made based on the results of the assessment for this study area, and on construction and monitoring standards previously and currently employed by Manitoba Hydro only. Possible regulatory change in other provinces should not influence how projects like this will be managed in Manitoba going forward, unless determined to be appropriate by the Government of Manitoba. Manitoba Conservation and Water Stewardship has made protecting wetlands in the province a priority, and we believe that more appropriate references would be towards regulatory changes that the Province of Manitoba is currently proposing, and reference to no-net-loss of wetlands initiatives that Manitoba Hydro is currently undertaking (e.g. Bipole III, Point du Bois).

#### **10.3.1.2.2 Land Cover Class and Wetland Mapping**

This section provides an overview of methods used to review and classify wetlands found within the project area. Hydro utilized standard recognized methods, including the National Wetland Classification System and Steward and Kantrud methodology. These methods are useful for classification of wetland type but do little to provide a measure of value to a wetland. Many jurisdictions are moving toward classification systems that allow a wetland to be evaluated based on function and value. Utilizing value based assessments allows both regulators and proponents to provide more consistent direction to mitigation/compensation measures.

Some feature based values include:

- Habitat for listed species / species of concern
- General fish / wildlife value
- Flood attenuation
- Surface water storage
- Sediment retention / removal
- Shoreline stabilization
- Uniqueness
- Recreation / education values

Going forward Manitoba Conservation and Water Stewardship will be requiring Manitoba Hydro and proponents to incorporate this type of methodology into assessments like this.

#### **10.4.3 Native Vegetation Cover Class Abundance, Distribution, and Structure**

**“In the past, Manitoba listed native vegetation communities that were considered rare in the province. However, the MCWS Wildlife Branch is revising these communities of conservation concerns, so they are no longer listed by the MBCDC.”**

Although this statement is true, tall grass prairie has now been listed as an *Endangered* ecosystem under *The Endangered Species and Ecosystems Act*, and given its occurrence within the RAA, this should have been stated.

##### **10.5.3.3.1 Construction**

**“Grassland will be disturbed in 2.9% (91 ha) of the Final Preferred Route PDA... The Project is not routed in or through managed tall grass prairie parcels.”**

Although it is stated that the ROW is not routed through any managed tall grass prairie parcels, disturbance to any grassland patch that holds the potential to be classed as *Endangered* tall grass prairie is a concern. Further inspection will be required to determine if these patches are/are not of the tall grass prairie type and if further mitigation will be required. The Wildlife and Fisheries Branch can provide assistance for determination (species composition, known patch occurrences, etc.).

## **Chapter 11 Assessment of Potential Environmental Effects on Traditional Land and Resource Use**

### **11.5.3.3 Mitigation for Change in Hunting and Trapping**

No connection is made as to relationship between wetlands and aquatic furbearers. Any draining or alterations to significant wetlands would have an effect upon species such as beaver, muskrat, mink, etc. that they might support. This would include the spectrum from larger marshes to lakes to rivers.

## **Chapter 16 Assessment of Potential Environmental Effects on Land and Resource Use**

### **16.3.2.1.6 Hunting and Trapping**

This section should not only focus on impacts to lodges and out camps (non-resident hunting opportunity/activity), but also explicitly mention how the project may impact resident licensed hunters and trappers.

### **16.3.2.2 Potential Environmental Effects, Effect Pathways and Measurable Parameters “Effects from change in land and resource use on other environmental and socio-economic components are:...”**

Loss of wildlife and habitat should have been included in this list and in Table 16-1.

### **16.4.8.1.2 Hunting**

**“In 2014, hunters (29,371 tags sold province-wide) were restricted to harvesting...”**

This number is incorrect. The number provided and listed in the cited document is the licence (not tag) sales from the 2013/14 fiscal year, one year prior to the bag limit for the general licences being changed to one buck (antlered) deer (2014/15). Please note that antlerless (second and third deer) licences are still available for portions of this study area (GHA 34A). This incorrect statement is also made in 1.3 Wildlife and Wildlife Habitat TDR - Section 2.3.1.2.1.

**“The following commercial guide-outfitters are known to operate in the RAA:”**

This is a list of outfitters (guide-outfitters is not proper terminology for Manitoba) with big game allocations only. Other outfitters that specialize in waterfowl are not listed. These outfitters should have been incorporated, or the statement changed to reflect that only black bear and white-tailed deer outfitters are listed.

**“GHA 25B and 35 were the only areas where moose licenses had been issued from 2000-2007. Six resident moose license were issued in GHA 25B and seven moose licenses were issued in GHA 35 between 2000 and 2007.”**

This statement contains incorrect information. GHA 25B and 35 did not have a moose season during this time period. Moose hunting in GHA 35 was canceled prior to the 2000 hunting seasons, and there were no moose hunting seasons GHA 25B.

#### **16.5.4.3.1 Construction Phase**

Large numbers of furbearers were caught near hydro lines because linear features can serve as barriers to dispersing furbearers, not because the feature attracts them.

## **Chapter 22 Environmental Protection, Follow-up, and Monitoring**

### **2.4.3 Mammals**

**“Large-bodied mammals, such as white-tailed deer and elk, are considered sensitive to disturbance.”**

This statement should include moose, given that they were observed in the RAA during assessment surveys.

**“The right-of-way and access trails could facilitate movement and increased hunting efficiency for gray wolves and for other predators.”**

This statement should have explicitly mentioned increased hunting efficiency for humans, as well.



## **Chapter 22 - Appendix 22A Construction Environmental Protection Plan**

### **2.4.2 Reptiles/Amphibians**

This plan focuses on riparian areas, and northern leopard frog and snapping turtle habitat. This should include eastern tiger salamanders as well, for reasons explained in our comments on Chapter 22 - Appendix 22C – Section 4.4.1. Eastern tiger salamanders breed in small ponds that do not have fish or snapping turtles. Their biggest threat is dewatering or accidental introduction of fish. Any pond found to have salamander egg masses should be avoided until late summer when the larval salamanders have metamorphosed and left the water. Additional concerns are flooding and ditching that is conducted in such a way that will allow fish to access these sites.

## **Chapter 22 - Appendix 22C Environmental Monitoring Plan**

### **General Comments:**

In general, the monitoring plan is under-developed. The Wildlife and Fisheries Branch requires significantly more detail and substantial revisions to the proposed methodology, timelines, and background information to meet our expectations of a project such as this. Detailed methodology, similar to that provided in the Lake Winnipeg East System Improvement monitoring plan is required before we can make a final assessment for this document.

All monitoring plans relating to linear disturbance must include objectives and a detailed description of the monitoring methodology, parameters that will be measured, and frequency of measurements such that when implemented, in a statistically robust manner, they assess:

- The effectiveness of mitigation measures employed, and;
- The potential residual effects of the Project on wildlife, which includes sensory disturbance, disruption of movement, mortality, and functional habitat loss as identified in the Environment Impact Statement.

While Manitoba Hydro's monitoring objectives are provided in each section, they mostly describe what will be monitored rather than effects to be assessed. It would be helpful to re-state these predictions as objectives and/or hypotheses to be tested, and then describe what will be monitored to test the predictions and/or hypotheses. These types of statements will: a) assist our agencies in determining if our expectations/objectives are similar; and; b) provide clarity for determining monitoring priorities to test effects.

As a member of the Environmental Licensing Technical Advisory Committee, the Wildlife and Fisheries Branch is responsible to assess if a proponent's monitoring plan (i.e. proposed monitoring activities) will adequately assess the effectiveness of mitigation measures that aim to minimize or eliminate negative impacts to wildlife populations.

As part of that process, the Wildlife and Fisheries Branch's EIS review considers identified residual adverse effects on wildlife populations or their habitat and the proponent's proposed mitigation to address these effects. Where monitoring cannot determine the effectiveness of proposed mitigation measures or those mitigation measures prove inadequate, the department will require the proponent to do additional mitigation in order to meet their Environment Act license requirements.

Conservation and Water Stewardship expects that a monitoring plan for this type of linear development will assess whether there are Project-related consequences for key wildlife species, and specifically whether there are changes (through time) or differences (relative to outside the ZOI) in

1. Abundance, occupancy and distribution of wildlife within the zone of influence (ZOI),

2. Mortality of wildlife (e.g., infrastructure related, human related, predation, parasites, disease) within the ZOI,
3. Habitat; i.e. loss/alteration within the ZOI,
4. Traffic volume along ROW;

Furthermore,

5. The monitoring plan will assess if mitigation measures put in place reduced the potential impacts listed above.

Although before-after control-impact (BACI) monitoring is referenced throughout the monitoring document, we expect appropriate BACI designs to be employed for all species of concern. The best method for assessing impacts of disturbance and effectiveness of mitigation actions is through the use of data collected in a consistent and rigorous manner before and after disturbance. We should also note that an important component of BACI designs is the use of control or reference sites. This is in Manitoba Hydro's best interest as any documented changes within the ZOI can be compared to reference sites and may allow Manitoba Hydro to tease apart effects associated with the Project from Region-wide trends over the same time period.

Please note that the MCWS's general requirement for at least two years of pre-construction baseline data (using consistent methodology throughout monitoring) means that some alternative baseline data will still need to be collected prior to construction in order to meet our expectations of this plan. Given the proposed construction timelines (Riel Converter Station to U.S.A. Border construction = Q2 - 2018 to Q1 - 2020) appropriate baseline data will need to be collected starting in winter 2016 before licensing and approval of this plan. The Wildlife and Fisheries Branch understands this short timeline, and in the best interest of wildlife, habitat, and the monitoring process, will attempt to assist Manitoba Hydro in developing appropriate methodology in a timely manner so that data collection can commence prior to official approval of this plan.

### **Detailed Comments:**

#### **Sections 4.3.1 - 4.3.4, 4.4.1 – 4.4.8, & 4.5.3.1**

Many of the tables in these sections fail to include baseline (pre-construction) data collection (e.g. pre-construction aerial surveys and camera trap surveys), which is important to include, since methodology must remain consistent through the construction and post-construction periods.

#### **Manitoba Hydro is committed to:**

- **Summarize results of key monitoring activities in an annual monitoring report; and**
- **Share results of key monitoring activities with interested local stakeholder, First Nations and Metis.**

These points should explicitly say that monitoring reports, results, and data will be provided to Manitoba Conservation and Water Stewardship.

#### **Specialist will:**

Going forward in documents like this, these sections should specify that the Specialist is a consultant working for Manitoba Hydro, so that they are not confused with an independent third party.

#### **Manitoba Conservation and Water Stewardship may be requested to:**

These sections should be revised to say that MCWS must approve any “mitigation strategies should unexpected impacts occur as result of the transmission line”.

#### **Decision Trigger(s)/Threshold(s) for Action**

Each decision trigger will require an action. These actions should be provided in each section. Once again, MCWS must approve these proposed actions.

#### **4.4.1 Amphibians**

This plan only proposes to monitor for northern leopard frogs. The prairie population of this species is listed federally largely because of declines in Alberta and western Saskatchewan. We have not listed them provincially under *The Endangered Species and Ecosystems Act* because they appear to be abundant and widespread throughout most of Manitoba, with the possible exception of the southwestern corner of the province. A much bigger concern in this study area is the eastern tiger salamander. Southeastern Manitoba is the only place left in Canada where they have not yet been extirpated. Manitoba Conservation and Water Stewardship personnel are currently conducting surveys for this species and it is likely that this species will be listed provincially in the near future. This plan must include an eastern

tiger salamanders monitoring component. Please note that this will require a minimum 2 years of baseline survey data to be collected prior to the construction period.

#### 4.4.7 Ungulates and Predators

Outside of the influence of predation on ungulates, there is no specific monitoring of predators proposed in this or Section 7.3.3, therefore we question if these sections are appropriately named.

**“Therefore, white-tailed deer are not particularly susceptible to the effects of habitat fragmentation”**

We disagree with this statement. White-tailed deer can be sensitive to fragmentation and disturbance to wintering areas. Furthermore, the “Stewart et al. 2011” reference is not provided in the **References** section, therefore we are left questioning how this statement applies to Manitoba and ROW’s.

**“... potential project effect of increased mortality risk from hunters and predators as a result of enhanced access of white-tailed habitat in eastern portions of the project, however the effect is expected to be minimal with no measurable effect on abundance anticipated.”**

The Wildlife and Fisheries Branch does not agree with this statement, therefore our expectation (for monitoring plans like this, as explained above) is that Manitoba Hydro will monitor for changes in white-tailed deer abundance (further comments on methodology provided in review of section 7.3.3.2).

**“...the Vita elk population in Manitoba (fall/winter range) is shared with Minnesota (summer range)”**

**“The ROW avoids core areas known to support elk near Vita and Arbakka, with no anticipated significant adverse project effects on the population.”**

Seasonal occupation by elk in this area is not fully understood, with the core areas near Vita and Arbakka known to support wintering elk. Please note that Chapter 9 - Section 9.4.3 states that **“Roseau River Anishinabe First Nation indicated that they hunt elk in the area NW of Caliento and also in the Spur woods WMA... Black River FN elders indicated that elk were hunted south of Watson P. Davison WMA, continuing southeast to Spur Woods WMA and then towards Piney...”**. Therefore going forward, Manitoba Hydro is expected to monitor elk year round to assess if accommodation and mitigation employed during the route selection process was appropriate and successful in limiting the effects of the Project on elk.

**Table 4-13 Ungulates and Predators****Key Monitoring Activity: Mineral Lick Survey****Timing: Fall**

These types of surveys should be conducted in spring/early summer, not fall.

**4.4.8 Black Bear**

**“...but local abundance may be variable depending on annual severity of weather and food availability.”**

A more appropriate statement would be “fluctuations in weather”, given that severe weather events can at times be beneficial to black bears.

**“Black bears are an important species to subsistence users (First Nations and Metis) and to the livelihood of local commercial outfitters.”**

In what capacity is black bear important to subsistence users (food source, fur, symbolic representation, recreation, etc.)? Also, what about importance to resident licensed hunters in the region?

**Objective(s):**

**“a. ...where baseline data permits”**

Please provide explanation as to why pre-existing data would limit future monitoring. Methodology must remain consistent to make monitoring appropriate and worthwhile, however there is still time to collect adequate baseline data (generally 2 years) before construction is to begin (see general comments above). Data gaps remaining after this assessment should not prevent suitable future monitoring, given the current timelines that Manitoba Hydro is working with.

**Key Monitoring Activity: Camera Trap Survey****Timing: Year-round**

Are we to assume that these are the same cameras that will be deployed for the Ungulates and Predators monitoring (more detail needed in Section 7.3.3)? Regardless if they will be left out year-round for other species, the black bear component does not need state this, since documenting activity/or lack thereof during the denning period is not required to meet any of the objectives outlined in this section.

**Decision Trigger(s)/Threshold(s) for Action**

**“Project footprint exceeds predicted area within range”**

What does “range” refer to in this statement?

### 7.3.2.2 Sharp-tailed Grouse Lekking Sites

We appreciate the fact that Manitoba Hydro conducted pre-construction surveys for leks and that known lekking sites were avoided during route planning. We are also satisfied with the proposed multi-year post-construction monitoring of known lek sites. However, we'd like to caution the proponent that the exact location of sharp-tailed grouse leks can vary annually, and the immediate area around the lekking site is as important as the dancing ground, as it's generally used for nesting/brood rearing. Surveyors should consider this when searching for and monitoring lekking sites, given that increased predation can influence more than just changes in male abundance on the dancing grounds.

### 7.3.3 Ungulates and Predators

Black bear is included in this section (7.3.3.3), while Black Bear (4.4.8) is separate from Ungulates and Predators (4.4.7) in Section 4.4. Black bears should not be lumped in with predators.

#### 7.3.3.1 Elk

**"Distribution and occurrence mapping of the Vita elk population will be conducted using a combination of systematic winter aerial surveys, incidental observations (during white-tailed deer surveys, project staff and public), and remote IR camera trap arrays (Kays *et al.* 2009) situated along the ROW and adjacent suitable habitat where the RAA and the Vita elk range overlap."**

The winter aerial survey methodology only provides a single snapshot in time, and thus provides information on elk during the winter only. Changes in year-round elk distribution must be assessed as well, including collection of baseline data. Furthermore, no mention of pre-construction aerial surveys or camera trap studies is made in the Section 4.4 tables; therefore we are left guessing which Designs will be continued through to the post-construction phase.

#### 7.3.3.2 White-tailed Deer

The Wildlife and Fisheries Branch expects (see expectations in General Comments, above) that this project will monitor for changes in white-tailed deer abundance. Potential changes in abundance of deer are best measured using counts of animals, not tracks. Pre-construction data including deer animal counts should be collected during 2016 and 2017.

In order to monitor abundance, the proposed aerial surveys should count individuals, as track counts have limited applicability in assessing potential changes in white-tailed deer abundance. Furthermore, two years of baseline data that include counts of individuals will be required, meaning that additional pre-construction surveys will need to be conducted in 2016 and 2017.

**“Distribution and occurrence mapping of white-tailed deer will involve systematic winter aerial surveys of monitoring blocks along the project ROW to assess change in occurrence and/or season distribution relative to project infrastructure and wolf distribution.”**

The described methodology only provides a single snapshot in time, which at most, can be used to determine white-tailed deer winter distribution and occupancy. How will changes in year-round distribution and occupancy be assessed? This methodology, including baseline data collection, must be included in this Monitoring Plan.

**“More information on how baseline data was collected can be found in the Wildlife and Wildlife Habitat TDR.”**

Although the methodology is not clearly stated in this plan and the portions of the plan require substantial revisions, the use of 20 x 20 km monitoring blocks will suffice to test current objectives. Going forward with further baseline data collection (as required in the above comment) and through construction and post-construction monitoring, Manitoba Hydro will be required to incorporate some “control” blocks.

#### **7.3.3.3 Black Bear**

**“Distribution and occurrence mapping of black bears will concentrate on monitoring changes in occurrence and prevalence of black bears to the project ROW and adjacent areas using remote IR camera trap arrays...”**

The proposed camera trap study can only assess difference in detection of black bear (or other species) between the ROW and “control” areas, not prevalence which requires a known population size (also, see comments on validity of control areas being located 500 - 800 m from ROW, above).



## **General Environment Licence Recommendations**

**Note:** the lack of recommendations for any monitoring clauses does not signify approval of the plan. This plan in its current state is underdeveloped, and the Wildlife and Fisheries Branch requires significant revisions to the proposed methodology, timelines, and background information to meet the expectations described in our previous commentary prior to the plan being approved. Specific monitoring clauses may be requested at a later date.

- 1) The document consistently states that Manitoba Hydro's is committed to providing summary data regarding observations of Species of Conservation Concern. While the Wildlife and Fisheries Branch appreciates this commitment, the licence should explicitly require Manitoba Hydro to not only provide summary data, but detailed information, including locations, on SOCC observations to the Conservation Data Centre on an annual basis.
- 2) The proponent will be required to work with the Wildlife and Fisheries Branch to determine if any of the grassland patches that make up the 91 ha of grassland that will be disturbed by the Project (Chapter 10 - Section 10.5.3.3.1) are of the tall grass prairie type protected under *The Endangered Species and Ecosystems Act*. If determined to be of this ecosystem type, further mitigation will be required and approved by the Director of the Wildlife and Fisheries Branch prior to any Project clearing/construction.
- 3) Similar to clause 52 of *The Environment Act* Licence 3055 (Bipole III Transmission Project), the proponent should be required to ensure that "any affected wetland area will be restored, replaced or offset as approved by the Director to ensure no net loss of wetlands". Much like the Bipole III Project, the Wildlife and Fisheries Branch anticipates that they will be involved in the development of a No Net Loss of Wetland Plan (NNLW) for this project, as well.